

SEQ List.ST25
SEQUENCE LISTING

<110> Shanghai Hua-Yi Bio-Tech Lab
Sun, Yukun
Wu, Dengxi
Wu, Aizhen
Zhu, Zhiyong
Yu, Gang
Zhou, Jiaxiang
Zhao, Shaoling

<120> A Method of Producing Insulinotropic GLP-1 (7-36) Polypeptide
and/or GLP-1 Analogs

<130> 291-0002US

<150> CN01126278.8

<151> 2001-07-19

<150> PCT/CN02/00502

<151> 2002-07-17

<160> 31

<170> PatentIn version 3.2

<210> 1

<211> 30

<212> PRT

<213> homo sapiens

<400> 1

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
20 25 30

<210> 2

<211> 30

<212> PRT

<213> homo sapiens

<220>

<221> MOD_RES

<222> (30)..(30)

<223> AMIDATION, Position 30 is Arg-NH2

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1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
20 25 30

<210> 3

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<211> 31
 <212> PRT
 <213> homo sapiens

<400> 3

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 4
 <211> 30
 <212> PRT
 <213> Artificial

<220>
 <223> This sequence contains one or more substituted amino acids
 relative to the wild-type GLP-1 (7-36) sequence.

<400> 4

His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
 20 25 30

<210> 5
 <211> 30
 <212> PRT
 <213> Artificial

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 <223> This sequence contains one or more substituted amino acids
 relative to the wild-type sequence.

<400> 5

His Val Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
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Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
 20 25 30

<210> 6
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<400> 6

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Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
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<213> artificial

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<210> 9
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His Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
20 25 30

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<210> 10
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Gln Glu Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
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<210> 11
 <211> 30
 <212> PRT
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<210> 12
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<210> 13
 <211> 30
 <212> PRT
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<400> 13

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Gln Ala Ala Lys Glu Phe Ile Glu Trp Leu Val Lys Gly Arg
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<210> 14

<211> 30

<212> PRT

<213> artificial

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<210> 15

<211> 30

<212> PRT

<213> Artificial

<220>

<223> This sequence contains one or more substituted amino acids relative to the wild-type sequence.

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Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Glu Gly Arg
20 25 30

<210> 16

<211> 30

<212> PRT

<213> artificial

<220>

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<400> 16

SEQ List.ST25

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1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Thr Arg
20 25 30

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<211> 30
<212> PRT
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<400> 17

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Gln Gly Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
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<211> 30
<212> PRT
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Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Ala Lys Gly Arg
20 25 30

<210> 19
<211> 60
<212> DNA
<213> Artificial

<220>
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<210> 20
<211> 62
<212> DNA
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 <210> 21
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 <212> DNA
 <213> Artificial

 <220>
 <223> GLP-1 synthetic sequence

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 <210> 22
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 <212> DNA
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 <220>
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 <210> 25
 <211> 58
 <212> DNA

SEQ List.ST25

<213> Artificial

<220>

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<211> 56

<212> DNA

<213> Artificial

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<213> Artificial

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<223> GLP-1 synthetic sequence

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<210> 28

<211> 62

<212> DNA

<213> Artificial

<220>

<223> GLP-1 synthetic sequence

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gg 62

<210> 29

<211> 811

<212> DNA

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<220>

<221> exon

<222> (13)..(807)

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aaa Lys 30	ggt Gly	cgt Arg	gga Gly	tct Ser	cgt Arg 35	cac His	gcg Ala	gaa Glu	ggt Gly	acc Thr 40	ttc Phe	acc Thr	agc Ser	gat Asp	gtg Val 45	147
agc Ser	agc Ser	tat Tyr	ctg Leu	gaa Glu 50	ggt Gly	cag Gln	gcg Ala	gcg Ala	aaa Lys 55	gaa Glu	ttt Phe	atc Ile	gcg Ala	tgg Trp 60	ctg Leu	195
gtg Val	aaa Lys	ggt Gly	cgt Arg 65	gga Gly	tct Ser	cgt Arg	cac His	gcg Ala 70	gaa Glu	ggt Gly	acc Thr	ttc Phe	acc Thr 75	agc Ser	gat Asp	243
gtg Val	agc Ser	agc Ser	tat Tyr 80	ctg Leu	gaa Glu	ggt Gly	cag Gln 85	gcg Ala	gcg Ala	aaa Lys	gaa Glu	ttt Phe 90	atc Ile	gcg Ala	tgg Trp	291
ctg Leu	gtg Val 95	aaa Lys	ggt Gly	cgt Arg	gga Gly	tct Ser 100	cgt Arg	cac His	gcg Ala	gaa Glu	ggt Gly 105	acc Thr	ttc Phe	acc Thr	agc Ser	339
gat Asp 110	gtg Val	agc Ser	agc Ser	tat Tyr	ctg Leu 115	gaa Glu	ggt Gly	cag Gln	gcg Ala	gcg Ala 120	aaa Lys	gaa Glu	ttt Phe	atc Ile	gcg Ala 125	387
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gcg Ala	tgg Trp	ctg Leu 160	gtg Val	aaa Lys	ggt Gly	cgt Arg	gga Gly 165	tct Ser	cgt Arg	cac His	gcg Ala	gaa Glu 170	ggt Gly	acc Thr	ttc Phe	531
acc Thr	agc Ser 175	gat Asp	gtg Val	agc Ser	agc Ser	tat Tyr 180	ctg Leu	gaa Glu	ggt Gly	cag Gln	gcg Ala 185	gcg Ala	aaa Lys	gaa Glu	ttt Phe	579
atc Ile 190	gcg Ala	tgg Trp	ctg Leu	gtg Val	aaa Lys 195	ggt Gly	cgt Arg	gga Gly	tct Ser	cgt Arg 200	cac His	gcg Ala	gaa Glu	ggt Gly	acc Thr 205	627
ttc Phe	acc Thr	agc Ser	gat Asp	gtg Val 210	agc Ser	agc Ser	tat Tyr	ctg Leu	gaa Glu 215	ggt Gly	cag Gln	gcg Ala	gcg Ala	aaa Lys 220	gaa Glu	675
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acc Thr	ttc Phe	acc Thr 240	agc Ser	gat Asp	gtg Val	agc Ser	agc Ser 245	tat Tyr	ctg Leu	gaa Glu	ggt Gly	cag Gln 250	gcg Ala	gcg Ala	aaa Lys	771
gaa	ttt	atc	gcg	tgg	ctg	gtg	aaa	ggt	cgt	gga	tcc	taga				811

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255 260 265

<210> 30
<211> 3187
<212> DNA
<213> Artificial

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<223> This sequence contains thirty-two copies of GLP-1(7-36)
polypeptide

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<222> (13)..(3183)

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1 5 10
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Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val
15 20 25
aaa ggt cgt gga tct cgt cac gcg gaa ggt acc ttc acc agc gat gtg 147
Lys Gly Arg Gly Ser Arg His Ala Glu Gly Thr Phe Thr Ser Asp Val
30 35 40 45
agc agc tat ctg gaa ggt cag gcg gcg aaa gaa ttt atc gcg tgg ctg 195
Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu
50 55 60
gtg aaa ggt cgt gga tct cgt cac gcg gaa ggt acc ttc acc agc gat 243
Val Lys Gly Arg Gly Ser Arg His Ala Glu Gly Thr Phe Thr Ser Asp
65 70 75
gtg agc agc tat ctg gaa ggt cag gcg gcg aaa gaa ttt atc gcg tgg 291
Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp
80 85 90
ctg gtg aaa ggt cgt gga tct cgt cac gcg gaa ggt acc ttc acc agc 339
Leu Val Lys Gly Arg Gly Ser Arg His Ala Glu Gly Thr Phe Thr Ser
95 100 105
gat gtg agc agc tat ctg gaa ggt cag gcg gcg aaa gaa ttt atc gcg 387
Asp Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala
110 115 120 125
tgg ctg gtg aaa ggt cgt gga tct cgt cac gcg gaa ggt acc ttc acc 435
Trp Leu Val Lys Gly Arg Gly Ser Arg His Ala Glu Gly Thr Phe Thr
130 135 140
agc gat gtg agc agc tat ctg gaa ggt cag gcg gcg aaa gaa ttt atc 483
Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile
145 150 155
gcg tgg ctg gtg aaa ggt cgt gga tct cgt cac gcg gaa ggt acc ttc 531
Ala Trp Leu Val Lys Gly Arg Gly Ser Arg His Ala Glu Gly Thr Phe
160 165 170

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gaa Glu	ggt Gly	acc Thr	ttc Phe 305	acc Thr	agc Ser	gat Asp	gtg Val 310	agc Ser	agc Ser	tat Tyr	ctg Leu	gaa Glu	ggt Gly 315	cag Gln	gcg Ala	963
gcg Ala	aaa Lys	gaa Glu 320	ttt Phe	atc Ile	gcg Ala	tgg Trp	ctg Leu 325	gtg Val	aaa Lys	ggt Gly	cgt Arg	gga Gly 330	tct Ser	cgt Arg	cac His	1011
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cac His	gcg Ala	gaa Glu	ggt Gly	acc Thr 370	ttc Phe	acc Thr	agc Ser	gat Asp	gtg Val 375	agc Ser	agc Ser	tat Tyr	ctg Leu	gaa Glu 380	ggt Gly	1155
cag Gln	gcg Ala	gcg Ala	aaa Lys 385	gaa Glu	ttt Phe	atc Ile	gcg Ala	tgg Trp 390	ctg Leu	gtg Val	aaa Lys	ggt Gly	cgt Arg 395	gga Gly	tct Ser	1203
cgt Arg	cac His	gcg Ala 400	gaa Glu	ggt Gly	acc Thr	ttc Phe	acc Thr 405	agc Ser	gat Asp	gtg Val	agc Ser	agc Ser	tat Tyr 410	ctg Leu	gaa Glu	1251
ggt Gly 415	cag Gln	gcg Ala	gcg Ala	aaa Lys	gaa Glu	ttt Phe 420	atc Ile	gcg Ala	tgg Trp	ctg Leu 425	gtg Val	aaa Lys	ggt Gly	cgt Arg	gga Gly	1299

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tgg Trp 655	ctg Leu	gtg Val	aaa Lys	ggt Gly	cgt Arg	gga Gly 660	tct Ser	cgt Arg	cac His	gcg Ala	gaa Glu 665	ggt Gly	acc Thr	ttc Phe	acc Thr	2019
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gcg Ala	gaa Glu	ggt Gly	acc Thr 865	ttc Phe	acc Thr	agc Ser	gat Asp	gtg Val 870	agc Ser	agc Ser	tat Tyr	ctg Leu	gaa Glu 875	ggt Gly	cag Gln	2643
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cac His	gcg Ala 895	gaa Glu	ggt Gly	acc Thr	ttc Phe 900	acc Thr	agc Ser	gat Asp	gtg Val	agc Ser	agc Ser 905	tat Tyr	ctg Leu	gaa Glu	ggt Gly	2739
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SEQ List.ST25

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Asp Asp Asp Asp Lys
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